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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/847,821	05/02/2001	Yoshiaki Sawada	14592	6338

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EXAMINER

TREMBLAY, MARK STEPHEN

ART UNIT	PAPER NUMBER
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2876

DATE MAILED: 06/19/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/847,821

Applicant(s)

Sawada

Examiner

Tremblay

Group Art Unit

2876

—The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address—

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Status

- ☐ Responsive to communication(s) filed on _____.
- ☐ This action is **FINAL**.
- ☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- ☒ Claim(s) 1-8 is/are pending in the application.
- Of the above claim(s) _____ is/are withdrawn from consideration.
- ☐ Claim(s) _____ is/are allowed.
- ☒ Claim(s) 1-8 is/are rejected.
- ☐ Claim(s) _____ is/are objected to.
- ☐ Claim(s) _____ are subject to restriction or election requirement.

Application Papers

- ☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.
- ☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.
- ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119 (a)-(d)

- ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- ☒ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been received.
- ☐ received in Application No. (Series Code/Serial Number) _____.
- ☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____.

Attachment(s)

- ☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____
- ☐ Interview Summary, PTO-413
- ☒ Notice of Reference(s) Cited, PTO-892
- ☐ Notice of Informal Patent Application, PTO-152
- ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Other _____

Office Action Summary

Applicant: Sawada

Filing date: 5/2/2001

Claim Rejections - 35 USC § 112

5 Claims 1- are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention.

Re claim 1, Applicant recites "said personal information" in line 10. This recitation lacks antecedent basis in the claim.

10 Re claim 3, Applicant recites in claim 1 "a credit card verification device possessed by said business". Applicant does not recite a second credit card verification device. In claim 3, Applicant recites "said credit card verification device is possessed by a credit card company". It is unclear what Applicant means by this, when this limitation is interpreted in light of the specification. Applicant clearly discloses a separate business and credit card company, and the point of the invention is not to disclose personal information to one of the two, namely the
15 business. Yet the claim appears to recite that the verification unit is possessed by both.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

20 A person shall be entitled to a patent unless --
(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

25 Claims 1-8 are rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent #5,420,926 to Low et al. ("Low" hereinafter.) Low teaches a sales system using a credit card in which a card holder presents said credit card to a business that sells goods or services, said business, after confirming the validity of said credit card, supplies the goods or services to said card holder, comprising:

30 a credit card containing coded information P unique to said card holder;
a credit card verification devices possessed by said business (col. 4, lines 2-6), said credit

verification device comprising a zero-knowledge (anonymous) verification unit based on a zero-knowledge (anonymous) verification system and being capable of verifying said credit card containing coded information based on the zero-knowledge (anonymous) verification system, whereby

5 a transaction in said sales system using said credit card is carried out without presenting said personal information of said credit card to said business. As described by Low, only the pseudonym P is presented, and that is further encrypted for verification by bank Bp. Shop S gets message 233 to send via credit verification device. Shop S has no knowledge of the true customer account at Bc or the true customer's identity (personal information).

10 Re claim 3, the decryption necessary to decode the message 233 in various stages is possessed by both banks Bp and Bc.

15 ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
20 such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-8, are rejected under 35 U.S.C. § 103 as being unpatentable over Low in view of
25 U.S. Patent #4,926,479 to Goldwasser et al. ("Goldwasser" hereinafter). Low discloses the features of the invention as described above. Low does not use the precise term "zero-knowledge". Examiner maintains that Low describes a zero-knowledge system using different language. Alternatively, Examiner allows for the possibility that Low may be considered other than zero-knowledge by parties other than Examiner. Examiner therefore relies in this alternative
30 on the teachings of Goldwasser. Goldwasser teaches a zero-knowledge system that may be used with credit cards. See abstract. It would have been obvious at the time the invention was made to

a person having ordinary skill in the art to use the Goldwasser zero-knowledge system to accomplish the purposes of the Low anonymous credit card system because Goldwasser describes the zero-knowledge system as useful for credit card systems, and teaches that the verifier gets no information due to strong encryption. Having the verifier get no information is a common goal of Low and Goldwasser.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U. S. Patent #5,502,764 to Naccache is cited for showing another zero-knowledge system.

Voice

Inquiries for the Examiner should be directed to Mark Tremblay at (703) 305-5176. The Examiner's regular office hours are 10:30 am to 7:00 pm EST Monday to Friday. Voice mail is available. If Applicant has trouble contacting the Examiner, the Supervisory Patent Examiner, Michael Lee, can be reached on (703) 305-3503. Technical questions and comments concerning PTO procedures may be directed to the Patent Assistance Center hotline at 1-800-786-9199 or (703) 308-4357.


MARK TREMBLAY
PRIMARY EXAMINER

June 13, 2002